CLAIMS

1. A catalyst composition for use in a hydrocarbon conversion process with the provision that the hydrocarbon conversion process is not cracking of polymers, which composition comprises

(a) an ionic liquid catalyst with an N-containing heterocyclic and/or aliphatic organic cation and an inorganic anion derived from metal halides or mixed metal halides, and

(b) one or more Brønsted Acids.

2. Catalyst composition of claim 1, wherein the cation of the ionic liquid catalyst is an N-aliphatic moiety with one or more alkyl or aryl groups.

3. Catalyst composition of claim 2, wherein the N-aliphatic moiety is an ammonium compound and/or an alkyl substituted pyridinium, piperidinium or quinolinium compound.

4. Catalyst composition of claim 1, wherein the anion of the ionic liquid is derived from a metal halide with strong Lewis acidic properties.

5. Catalyst composition of claim 1, wherein the ionic liquid catalyst is obtained by combining N-containing heterocyclic and/or N-containing aliphatic organic compounds with one or more metal halides in a molar ratio of between 1:3 and 1:0.5.

6. Catalyst composition of claim 1, wherein the metal halide is selected from $AlCl_4^-$, $AlBr_4^-$, $GaCl_4^-$, $Al_xCl_{2x+1}^-$, $1<x<2$ and $Al_xCl_{2x}Br^-$, $1<x<2$.

7. Catalyst composition claim 1, where the Brønsted Acid is selected from $ClSO_3H$, FSO_3H, alkane sulphonic acids, fluorinated alkane sulphonic acids, carboxylic acids, fluorinated carboxylic acids and mineral acids.

8. A process for isomerisation of paraffinic hydrocarbons by contacting a feed stock comprising the paraffinic hydrocarbons with a composite catalyst according to any one of the preceding claims at process conditions being effective in the isomerisation of the paraffinic hydrocarbons.

9. Process of claim 8, wherein the composite catalyst is pretreated by heating at a temperature below 250°C.

10. Process of claim 8, wherein the process conditions comprise a pressure from 1 to 60 bar and a temperature from -30°C to 150°C.